

# Intelligent ripple control receiver LCR 600

## All-purpose with 1 – 6 exchangeable relays, multifunctional

The LCR600 is a high-quality ripple control receiver including switch clock. It can be used in standard ripple control applications as well as in modern systems with “distributed intelligence” (VERSACOM) as a remotely programmable switch clock.

Digital filtering of the ripple control signal is done by a micro-controller in most modern technology using an algorithm developed by Elster.



## Functionality

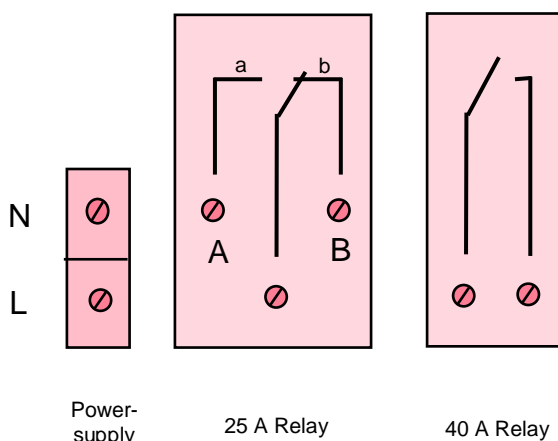
- Processing of all common ripple control protocols and their specific pulse patterns
- Internal clock with optional buffering by a super cap or a battery, flexible synchronisation using VERSACOM Protocol
- Switch clock depending on weekdays, with remote parameterisation using the ‘VERSACOM’ protocol (DIN 43861-301)
- Switch clock for a year with calculated dawn and dusk times for street light control
- Programming and test via the electrical interface (USB) is possible without the 230VAC power supply
- Optical interface according to IEC 62056-21 (option)
- Signal absence sensing, detection of transmitter failures
- The receiver is designed to accommodate up to 6 change over relays 25A pluggable or alternatively up to 4 relays normally open 40A pluggable. Also combinations of both relay types are possible.
- Anti – Tampering and supervision
  - Automatic refreshing of relay positions every 60 seconds
  - Counter for number of switching actions per relay
  - Log file for storage of pulse pattern and signal levels of last telegrams received (minimum 10 telegrams)
  - Log file for storage of events (power failure, low network frequency, signal absence)
- Cyclic switching function
- Switching delay (1 s – 24 h)
- Passing contact function (1 s – 24 h)
- Logical interconnection of relays
- User friendly programming tool *LCRset6*

## Technical Data

subject to alterations

<b>Power supply</b>	Voltage Un Frequency of power supply Lightning impulse strength	230V + 15%...-20% 50Hz +2%...-2% 8kV 1,2/50 according to DIN EN 61 000-4-5
<b>Filter data</b>	Audio frequency Selection of audio frequency Minimum respond signal voltage None respond signal voltage  Maximum signal level	158Hz – 1600Hz any frequency can be set $U_f > 0.5\% U_n$ $U_{nf} < 0.3\% U_n$ or according to agreement 8-15 times $U_f$ (dependent on frequency)
<b>Real time backup</b>	Supercap Battery  Time deviation	> 48 h without power > 3 years without power at 25° Celsius > 10 years with power < 2 s/day
<b>Output data</b>	Number of Relays Nominal switching voltage $U_c$ Nominal switching current $I_c$ Relays type (status a/b programmable) Terminal size	1 to 6 / 1 to 4 (bistable) 250V, 50Hz or 60Hz 25A / 40A at $\cos \phi = 0,4 \dots 1$ 25A change over contacts / 40A normally open floating contacts for 2 x 2,5 mm <sup>2</sup> or 1 x 4 mm <sup>2</sup> / 1 x 6 mm <sup>2</sup>
<b>Climate conditions</b>	Operating temperature Storage temperature	-20...+60°C -30...+60°C
<b>Housing</b>	Protection class	According to DIN 43861 part 2 (for installation on a meter panel or via terminal adapter to a meter ). The receiver is also designed to be mounted on a DIN - rail. IP53
<b>Dimensions</b>		H = 175 mm, W = 107 mm, D = 80 mm

## Connection diagramm



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